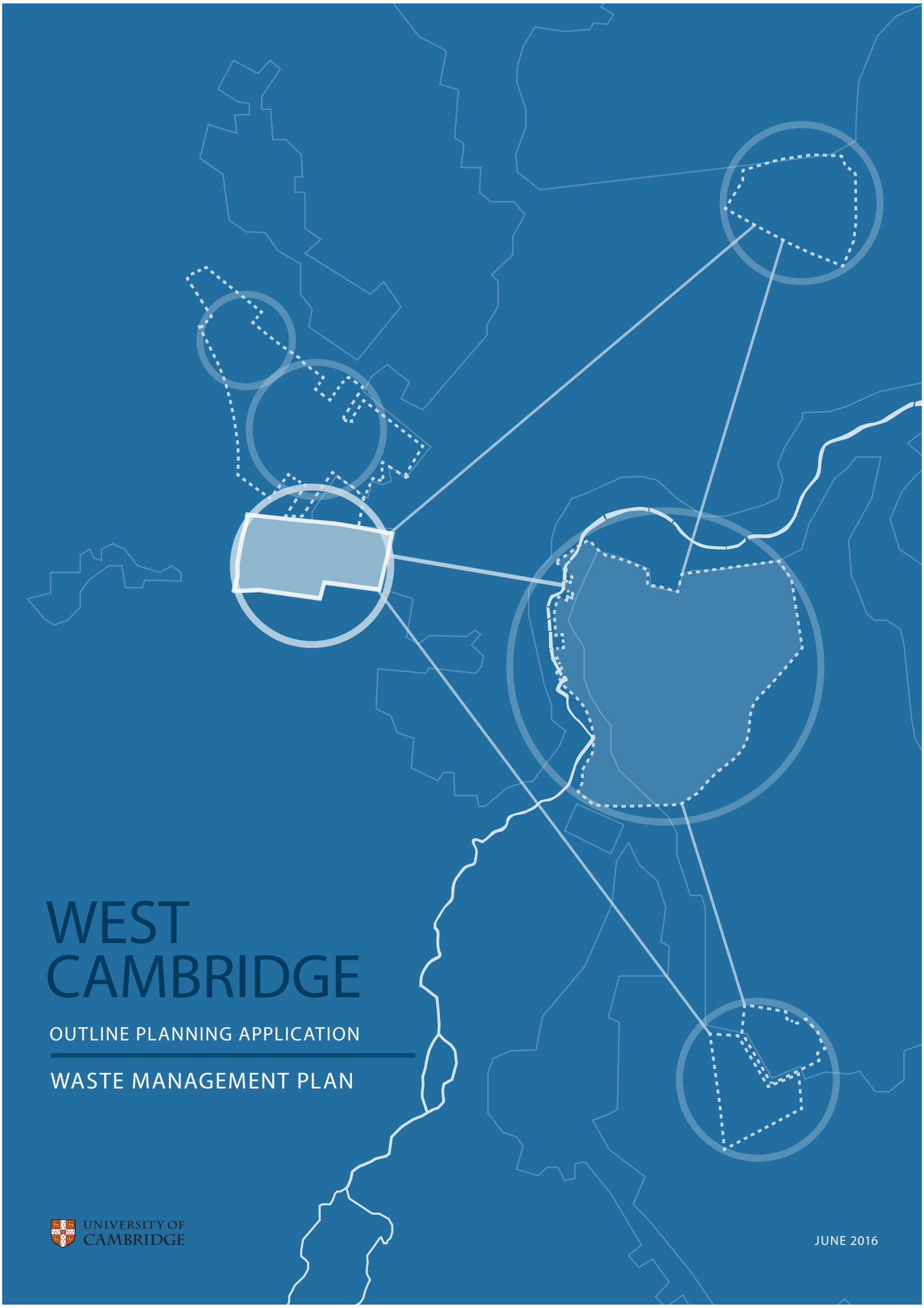


WEST CAMBRIDGE

OUTLINE PLANNING APPLICATION

WASTE MANAGEMENT PLAN

UNIVERSITY OF CAMBRIDGE

JUNE 2016

Document Control Sheet

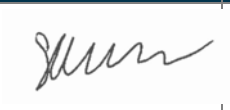
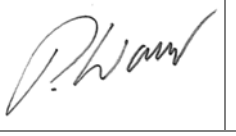
Project Name: **West Cambridge**

Project Ref: **31500**

Report Title: **Waste Strategy**

Doc Ref:

Date: **June 2016**

	Name	Position	Signature	Date
Prepared by:	Sarah Chandler	Assistant Environmental Planner		18/04/2016
Reviewed by:	Natalie Maletras	Associate		20/04/2016
Approved by:	Paul Wormald	Director		09/06/2016
For and on behalf of Peter Brett Associates LLP				

Revision	Date	Description	Prepared	Reviewed	Approved
1.0	18/04/16	Draft	SC	ST	07/06/2016
2	07/06/16	Final	ST	PW	09/06/2016

Contents

Figures

Tables

Appendices

Appendix C ‘RECAP’ Assessment Criteria

1 Introduction

1.1 Background

1.1.1 The University of Cambridge is submitting an outline planning application for the re-development of the West Cambridge site (the Site), for academic and commercial use and associated facilities. The outline planning application will include detailed proposals for means of access to / from the Site including any associated highway infrastructure works, and outline proposals for all built development.

1.1.2 It is important that waste arising from the construction and operation of the development is considered appropriately and therefore Peter Brett Associates (PBA) has been appointed by the University of Cambridge to develop a Waste Strategy, to support the planning application.

1.2 Purpose of this Waste Strategy

1.2.1 The purpose of this Waste Strategy is to:

- identify relevant policy and guidance the proposed development needs to consider and support;
- set the waste management principles and aspirations for the proposed development;
- identify the waste expected to arise during the construction & operational phases; and,
- identify the role and responsibilities of all parties which will be involved in the waste management of the proposed development.

1.3 Detailed Waste Management Plan

1.3.1 At reserved matters stage, once the specifics of the development are set, Detailed Waste Management and Minimisation Plan/s (DWMMP) will be produced. The details required to develop such a plan are not available at this outline planning stage. The DWMMP will include as a minimum:

- revised waste tonnage and material type estimates;
- construction waste infrastructure to be used on Site during construction;
- measures and protocols to ensure effective segregation of waste at source;
- any other steps to ensure the minimisation of waste during construction;
- location and timing of on Site waste facilities;
- proposed monitoring and timing of monitoring report submissions;
- recycling in Cambridgeshire and Peterborough (RECAP) Waste Design Guide 2012 toolkit completed with supporting reference material; and

- details of waste storage and waste servicing to ensure waste is minimised and opportunities for recycling and composting are maximised in the operational stage.

1.3.2 The principles set out in this Waste Strategy will inform the DWMMP, which will be managed and updated as necessary throughout the construction process.

2 Site Location & Proposed Development

2.1 Site Location

2.1.1 The application site (the Site) is located within the existing University of Cambridge development, approximately 2km to the west of Cambridge city centre and to the south of Madingley Road. The Site is bounded by the M11 to the west and residential properties to the north and east. Agricultural land lies beyond the M11 and residential developments which border the Site.

2.1.2 The Site is approximately 66 hectares and is currently occupied by the university and comprises a mix of land uses including academic, commercial, sports, and student accommodation.

2.1.3 A full description of the Site is provided in Chapter 2 of the West Cambridge Masterplan EIA (Atkins 2016).

2.2 Proposed Development

2.2.1 An existing masterplan (approved in 1999, ref. C/97/0961/OP) forms the basis of the current development on the Site. Together with the pre-existing development on the Site, the 1999 masterplan envisaged just under 275,000m^2 of development, approximately 47% of which would be academic, 15% research institute and 22% commercial research. The remaining 16% would consist of shared facilities, sports, and residential uses.

2.2.2 The academic and residential components have been delivered to the anticipated levels but the commercial research and shared facilities components are well below the envisaged 1999 masterplan. Policy 18 of the Draft Submission Local Plan supports the densification of the development through a revised masterplan subject to a number of conditions. It is within this context that the University of Cambridge is producing a new masterplan for the Site which significantly increases the amount of development to approximately 500,000m^2.

2.2.3 The proposed development is for mixed use commercial and shared use components including planning use classes A1-A5 (shops, financial and professional services, restaurants and cafes, drinking establishments, and hot food takeaways), B1b (commercial research / research institutes), and D1 (non-residential institutions) and D2 (assembly and leisure).

2.2.4 A figure of the proposed development is provided in Appendix A and a detailed description of the proposed development is provided in Chapter 3 of the West Cambridge Masterplan EIA (Atkins 2016).

2.2.5 The proposed development requires the demolition of several existing buildings on the Site, including the Cavendish Laboratory, Whittle Laboratory, Department of Veterinary Medicine, and University Stores buildings.

2.2.6 Table 2-1 sets out the maximum floorspace (m^2) for each use class and development zone for the proposed development; a plan of each proposed land use is shown in Appendix A.

Land Use	Academic research	Nursery	Commercial research / research institutes	Shop, cafe, restaurant, public house	Assembly & leisure (sports)	Ancillary infrastructure (data centre, energy centre)	Total proposed floorspace
Use Class	D1	D1	B1b	A1-A5	D2	Sui generis	
Building Zone I	Up to 73,000	Up to 1,500	Up to 21,900	Up to 500	0	0	Up to 75,000
Building Zone II	Up to 38,600	Up to 1,500	Up to 38,600	Up to 300	Up to 4,100	0	Up to 44,500
Building Zone III	Up to 178,400	Up to 1,500	Up to 51,700	Up to 200	0	Up to 2,000	Up to 182,100
Building Zone IV	Up to 104,000	Up to 1,500	Up to 104,000	Up to 500	0	Up to 4,500	Up to 110,500
Total Proposed floorspace	Up to 370,000	Up to 2,500	Up to 170,00	Up to 1,000	Up to 4,100	Up to 5,700	Up to 383,300

All figures quoted are Gross Floor Area, m2

Table 2-1: Maximum floorspace (m^2) for each use class and development zone

3 Policy and Guidance

3.1 National Policy

Waste Hierarchy

3.1.1 The Waste Framework Directive (WFD) (Directive 2008/98/EC) provides a general framework of waste management requirements and sets the basic waste management definitions for the EU. The European 'waste hierarchy' refers to the 5 steps included in the WFD.

3.1.2 The waste hierarchy is a conceptual model used to encourage the management and reduction of waste materials and is a principle embedded in European and UK legislation. The waste hierarchy seeks to ensure the most sustainable approach to a waste material is taken which will be different for any given waste product/material.

3.1.3 Figure 3-1 shows a basic representation and description of the waste hierarchy. The waste hierarchy will be considered as a guide to encourage the prevention of waste, and to ensure the subsequent waste management methods i.e. reuse and recycle are considered as the optimum solutions before recovery and finally disposal.

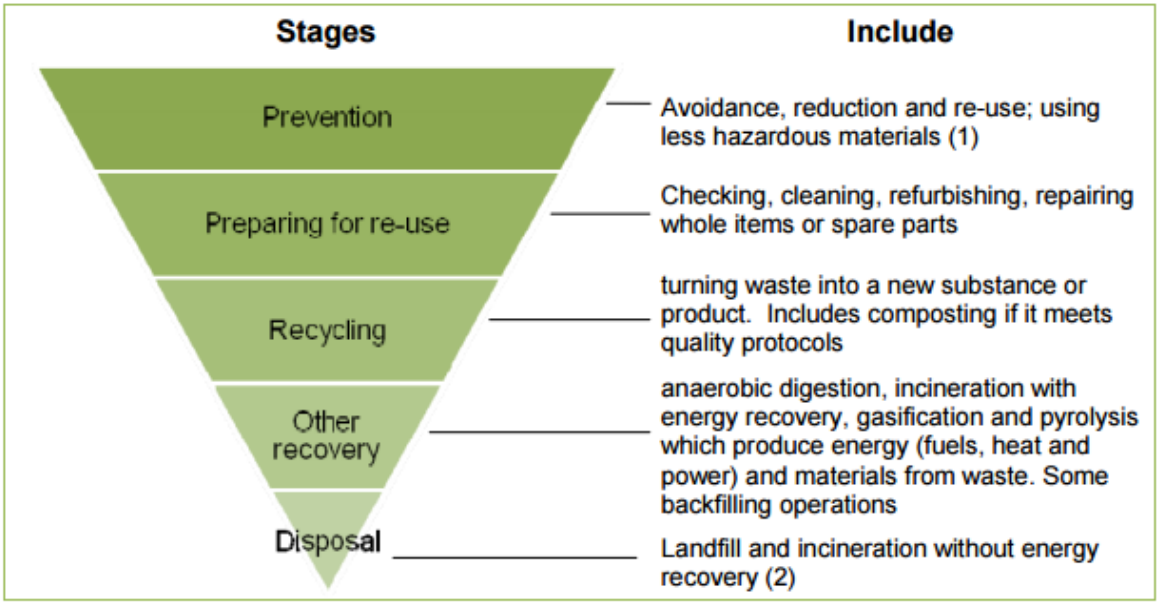


Figure 3-1: The Waste Hierarchy (Defra, 2013)

3.2 Regional and Local Policy

3.2.1 Cambridge City Council's Local Development Scheme comprises Development Plan documents and Supplementary Planning documents; the Development Plan documents include the Cambridgeshire and Peterborough Minerals and Waste Core Strategy which was adopted by Cambridgeshire County Council in 2011.

3.2.2 Policy CS28 Waste Minimisation, Re-use, and Resource Recovery, sets out that Cambridgeshire County Council, as the Waste Planning Authority, will require a waste management audit and strategy to put in place practicable measures to maximise waste minimisation, sorting, re-use, recovery and recycling of waste.

3.2.3 The Cambridgeshire and Peterborough Minerals and Waste Core Strategy sets out a requirement for new developments to consider waste management in accordance with the content of the RECAP (Recycling for Cambridgeshire and Peterborough) Waste Management Design Guide Supplementary Planning Document (SPD) (adopted 2012).

3.2.4 The RECAP Waste Management Design Guide provides further guidance in relation to Policy CS28 of the core strategy, and requires the completion and submission of the Design Standards Checklist.

3.2.5 RECAP requires both construction waste and operational waste management to be considered as part of the planning application.

4 Waste Materials: Indicative Type and Quantities

4.1 Introduction

4.1.1 This section sets out indicative types and quantities of waste materials expected to arise from the construction of the proposed development. Once the detail of the design has been determined, waste material estimates will be reviewed and recalculated. These will be presented in the DWMMP.

Demolition Waste

4.1.2 Demolition of the existing buildings will focus on maximising the re-use and recycling of demolished materials, where practically possible.

4.1.3 Any materials arising from the demolition, which may be reused on the new construction, for example as hardcore, are to be stockpiled in agreed areas within the Site or in off-site storage if necessary, ready for reuse.

4.1.4 The quantities of materials that would arise from demolition have not been estimated at this stage. Prior to commencement of demolition a pre-demolition audit will be undertaken to identify the likely waste arisings. The audit will identify the possibility for recovery methods of the different materials present, and will be discussed with the relevant Authority.

4.1.5 If hazardous waste materials are identified during the demolition audit, a specific Hazardous Waste Management Plan would need to be developed. All hazardous waste would be dealt with in accordance with relevant policy and guidance. An Asbestos Risk Register and Control of Substances Hazardous to Health (COSHH) report will also be prepared.

Construction Waste

4.1.6 The Building Research Establishment (BRE) has compiled data on the likely percentage of wastage (Waste Rate) of certain materials entering a building site in their Green Guide Materials Handbook. For example it is considered that 5% of all building blocks brought onto site will be wasted due to poor material management.

4.1.7 Indicative waste volumes arising from the construction of the proposed development have been calculated using the *maximum* land use parameters set out in Table 2-1, and typical construction waste volumes from the BRE's Waste Benchmark Data (SmartWaste, 2013); and are set out in Table 4-1 below.

4.1.8 The proposed land uses have been categorised to fit the BRE's Waste Benchmark Data available, as set out in Table 4-1.

Proposed Development Land Use Type	Land use category (BRE average benchmark data)	GIA Area (m^2) (maximum)	Average Waste (m^3/ 100m^2) (BRE average benchmark data)	Estimated Waste vol. (m^3) based on GIA
Academic research (D1)	Education	370,000	20.7	**76,590**
Nursery (D1)	Education	2,500	20.7	**518**
Commercial research (B1b)	Commercial offices	170,000	19.8	**33,660**

Shop, café, restaurant, PH (A1-A5)	Commercial retail	1,000	20.9	**209**
Assembly and leisure (D2)	Leisure	4,100	14.4	**590**
Ancillary infrastructure (sui generis)	Commercial other	5,700	17.4	**992**

Table 4-1: Construction Waste Estimates

4.1.9 The likely waste arisings will be re-calculated during the iterative detailed design process to inform the development of key considerations for construction waste in the DWMMP.

Operational Waste

4.1.10 Waste arising from the proposed development during the operational phase will extend to waste associated with the variety of proposed land uses.

4.1.11 Indicative waste volumes arising during operation[1] have been estimated and are presented in Table 4-2 using the *maximum* land use parameters set out in Table 2-1, and categorised by building category which provides a reasonable estimation for the proposed development.

Proposed Land Use Type	Building category	Maximum floorspace (m^2)	Waste storage requirements (l)[1]	Estimated Waste (l) based on floorspace m^2
Academic research (D1)	Offices	370,000	2,600 litres per 1,000m2 of floor space	**962,000**
Nursery (D1)	Schools	2,500	1,000 litres per 100 pupils [2]	**6,097**
Commercial research (B1b)	Offices	170,000	2,600 litres per 1,000m2 of floor space	**442,000**
Shop, café, restaurant, PH (A1-A5)	Retail	1,000	5,000 litres per 1,000m2 of floor space	**5,000**
Assembly and leisure (D2)	Retail	4,100	5,000 litres per 1,000m2 of floor space	**20,500**
Ancillary infrastructure (sui generis)	Offices	5,700	2,600 litres per 1,000m2 of floor space	**14,820**

Table 4-2: Operational Waste Estimates

[1] Estimated waste arisings based on waste storage requirements for commercial building uses as set out in the Refuse and Recycling Storage Guide (Hackney Council 2014)

[2] Number of pupils estimated using the Department of Education (2014) Area Guidelines for mainstream schools BB103.

4.1.12 The likely waste arisings during the operation of the proposed development will be re-calculated once detailed information is available on the final maximum land use areas, and will be used to inform the development of key considerations for operational waste in the DWMMP, and for determining the waste storage/ servicing requirements for the Site.

5 Waste Management Principles

5.1 Development Objectives

5.1.1 The proposed development must be designed and constructed in accordance with the relevant policies, and should adhere to sustainable waste management principles with the objective of ensuring materials are reduced, reused and recycled either on or off site as far as practicable.

5.1.2 The design team will, where possible, 'design out' waste through consideration of construction techniques that will prevent and minimise waste generation, and consider the requirements for waste management during the operation of the proposed development to design the scheme accordingly.

5.1.3 The reuse or recycling of the building materials which do arise from the proposed development is a waste management priority for the construction phase, therefore only where reuse/recycle options are unfeasible will waste streams be sent for disposal.

5.2 The Waste Hierarchy

5.2.1 A hierarchy of waste management will be adopted, in accordance with national policy, for the proposed development. The waste management methods in hierarchical order of merit, and options for re-use, recycle and disposal are therefore:

- Waste Prevention – through good design and procurement mechanisms.
- Preparation for reuse – to provide innovative design features to the development to use materials in their current state and form (for example reuse of soils), this can occur either on or off site.
- Material recycling - by using waste materials found on site and recycling / recovering them into an alternative form that can be used for any construction purposes (for example crushing concrete for road construction material). By recycling onsite, carbon emissions associated with the proposed development are reduced, rather than materials being taken away from the proposed development site.
- Other recovery - energy recovery from biodegradable or combustible materials would increase the use of waste materials, for example energy from waste.
- Disposal – the least preferred option where the waste stream would be subject to a final disposal route such as landfill.

5.3 Construction Waste – Key Considerations

5.3.1 In developing the DWMMP for demolition and construction waste the following should be considered:

- Dedicated area(s) within the site should be allocated for the segregation and storage of all demolition and construction waste streams as far as practicable.
- Onsite waste segregation and storage areas, and associated facilities such as skips and containers, for the purposes of demolition and construction waste, should be clearly labelled and secured as appropriate.
- Detailed plans and processes for waste segregation, storage and collection should be presented.
- The strategy for the procurement and delivery of materials during the construction phase should be presented. This should ensure material usage is optimised and waste quantities are minimised. The Principal Contractor will evaluate the use of materials required throughout the construction process and identify where there is the potential for returning unused materials to the supplier under a buy-back scheme, as may be necessary.
- Waste transfer company(ies) should be appointed as necessary in order to collect and remove any waste which needs to be transferred to an offsite waste management facility. The DWMMS should sets out appropriate procedures for the collection and movement of waste.

5.4 Operational Waste Management – Key Considerations

5.4.1 The RECAP Waste Management Design Guide (Cambridgeshire County Council, 2012) has been considered through the development of this Waste Strategy. However, at this stage, it is not feasible to develop a full operational waste strategy. This will be presented in the DWMMP.

5.4.2 Further detailed design work will be undertaken in accordance with the requirements of the RECAP Waste Management Design Guide and subsequent applications at the reserved matters stage will be submitted with completed RECAP Design Standards Checklist and RECAP Assessment Criteria.

5.4.3 The submission of these ‘tools’, set out in the RECAP Waste Management Design Guide, will ensure that the requirements for operational waste are considered during the detailed design of the proposed development, and will ensure it is compliant with the policy requirements.

5.4.4 Consultation will be undertaken with the relevant waste collection authority and waste management to ensure all planned waste operations are deliverable.

5.4.5 The RECAP Design Standards Checklist has been submitted at Appendix B with comments provided as to whether the categories are applicable to the proposed development; further update will be submitted at the appropriate time.

5.4.6 The RECAP Assessment Criteria has been submitted at Appendix C for information and a completed version will be submitted at the appropriate time, as necessary.

6 Roles and Responsibilities

6.1 Introduction

6.1.1 This section sets out the role and responsibilities of project team members in relation to waste management. The purpose of setting out these responsibilities is to ensure successful waste minimisation and management practices; and to identify individuals to deliver certain aspects of the Waste Strategy and DMWMP.

6.2 Roles and Responsibilities

The Employer

6.2.1 The Employer (University of Cambridge) will assume the overall responsibility for the waste management of the proposed development. It will be necessary for individual plot developers to comply with the site wide waste strategy, as reserved matter applications are brought forward.

6.2.2 The Employer and subsequent plot developers will ensure that all contractors engaged in the project have an obligation to reduce the quantity of waste likely to arise from the proposed development; and to ensure any waste that does arise is managed in the appropriate manner, under the approach set out in the Waste Strategy.

6.2.3 The Employer and subsequent plot developers are responsible for providing reasonable direction to any contractors and, in collaboration with the Principal Contractor, for the review and revision of the DWMMP as necessary.

Design Team

6.2.4 The Design Team will be responsible for reducing the quantity of waste likely to arise from the proposed development through the design process. The Design Team will consider the waste hierarchy to optimise reuse, recycling and recovery opportunities for the purpose of minimising waste as far as possible.

Principal Contractor

6.2.5 The Principal Contractor (once appointed by the Employer) will be responsible for the following:

a. Developing and Implementing the DWMMP during the construction phase of the proposed development. This includes responsibility for co-ordinating the management of all onsite waste streams, and the overall segregation, storage and collection of waste.

b. Ensuring that waste produced during construction is reused, recycled and recovered, as far as reasonably practicable.

c. Keeping all waste management and duty of care documentation and, in collaboration with the Employer, for making any necessary updates to the DWMMP and associated records;

d. Fulfilling waste management duty of care requirements and ensuring the lawful disposal of ‘Directive Waste’ (along with the appointed waste transfer company(ies) and the receiving waste site).

e. Ensuring that any sub-contractors are aware of and follow the procedures necessary to be compliant with the DWMMP.

f. Ensuring that all onsite employees, including those of sub-contractors, are provided with appropriate training to understand the requirements of the DWMMP.

g. Appointing a person(s) responsible for regularly checking compliance with the DWMMP, this may be The Waste Champion or an Environmental Clerk of Works.

Procurement

6.2.6 The person(s) responsible for the procurement of materials (who may be an employee of the Principal Contractor) will be responsible for, where possible, procuring materials that contain recycled content, have low or no packaging, and are purchased from suppliers that have a "buy-back" strategy for unused materials. All materials suppliers should, where possible, have certified environmental standards.

6.2.7 The person(s) responsible for the procurement of services (who may be an employee of the Principal Contractor) will be responsible for appointing waste management contractors that are suitably licenced and are compliant with duty of care obligations.

Sub-contractors

6.2.8 Any sub-contractors will be responsible for compliance with the DWMMP in use by the Principal Contractor, and may be required to produce their own waste management documentation as necessary.

References

Atkins (2016) West Cambridge Masterplan EIA

Building Research Establishment (BRE) (2015) Green Guide to Specification Online. https://www.bre.co.uk/page.jsp?id=499

Cambridgeshire County Council and Peterborough City Council (2011) Cambridgeshire and Peterborough Minerals and Waste Core Strategy

Cambridgeshire County Council and Peterborough City Council (2012) RECAP Waste Management Design Guide Supplementary Planning Document

Department for Education (2014) Area Guidelines for mainstream schools BB103 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/324056/BB103_Area_Guidelines_for_Mainstream_Schools_CORRECTED_25_06_14.pdf

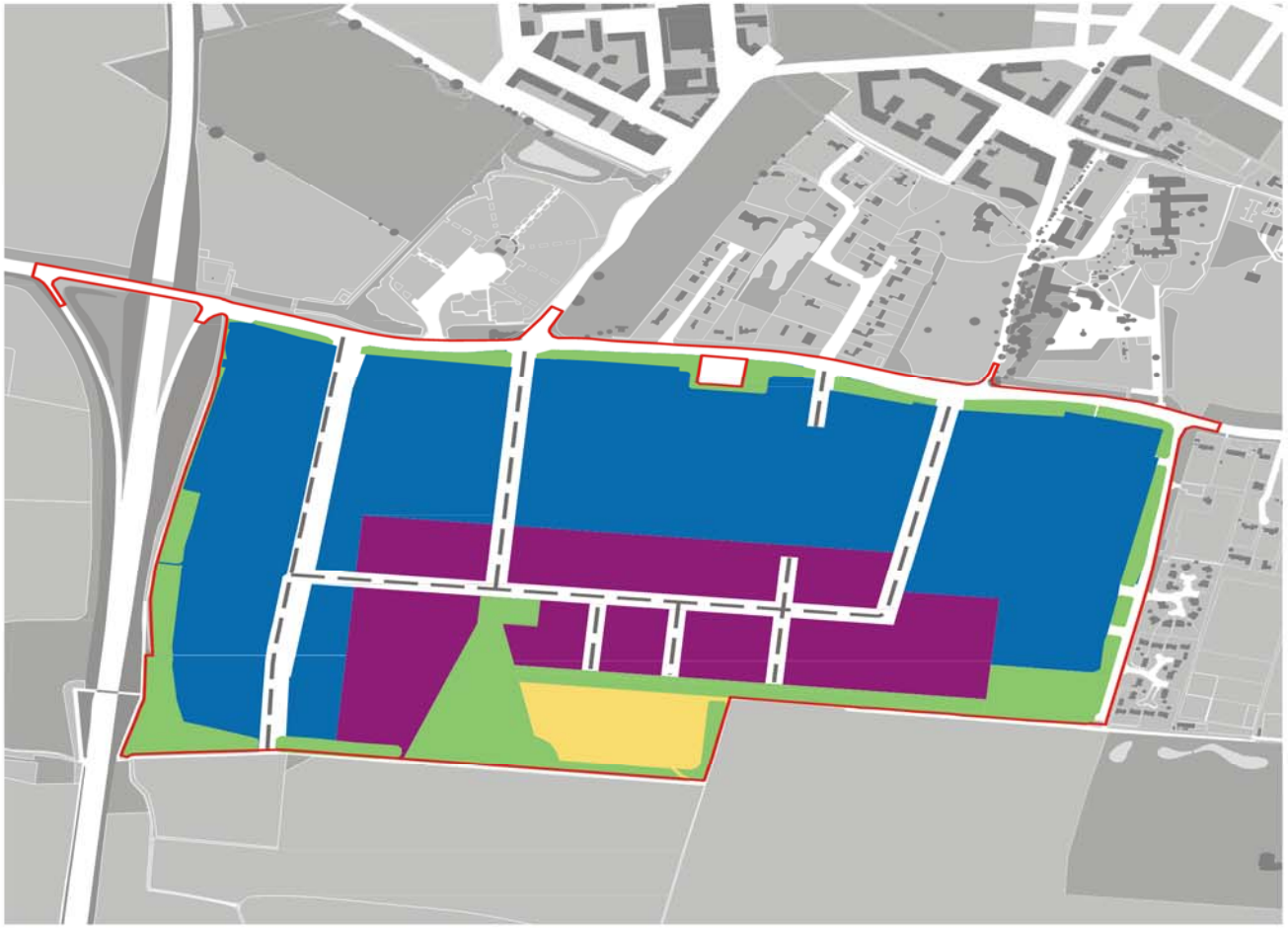
Department for Environment, Food & Rural Affairs (2009) Understanding and Predicting Construction Waste - WR0111

Department for Environment, Food and Rural Affairs (2011) Applying the Waste Hierarchy: evidence summary

Hackney Council (2014) Refuse and Recycling Strorage Guide http://www.hackney.gov.uk/media/6655/refuse-and-recycling-storage-guidance/pdf/Architects-Recycling-Guide

Smart Waste (2013) BRE Waste Benchmark Data. Issued 26th June 2012

Appendix A Proposed Land Use Plan



KEY

Contextual Information:
- Existing street
- Existing open land

For Approval:
- Application site boundary
- Academic & Commercial Mix: D1, B1b, sui generis
- Mixed Use Zone: A1-A5, B1b, D1
- Community Uses: D1, D2

Appendix B ‘RECAP’ Design Standards Checklist

DESIGN STANDARDS CHECKLIST			
Key consideration	**Step 1** Aware of Standard Minimum Expectations?	Does this apply to you? Yes or No, please state why	**Step 2** Submit proposals to Planning Authority (Provide Plan/document Reference)
Residential – Internal Storage requirement Refer to Part 4.4 of the Design Guide.	35-40 litres for single dwellings and multi-occupancy developments (low-rise and high rise) permitting segregation of waste as appropriate. Typical container specifications are detailed at Appendix A.	n/a No residential development proposed.	
Residential – External storage requirement Refer to part 4.7 of the Design Guide.	Single dwelling – Space for containers allowing a maximum of 775 litres of capacity must be provided. Typical container specifications are detailed at Appendix A. Provision of containers and/or financial contributions towards may also be required.	n/a No residential development proposed.	
	Low-rise with communal gardens – Space for containers allowing between 320 litres to a maximum of 720 litres of capacity per unit (depending upon the number of rooms – see Table 4.1) must be provided. Typical container specifications are detailed at Appendix A. Provision of containers and/or financial contributions may also be required.		
	Low-rise without communal gardens – Space for containers allowing between 240 litres to a maximum of 640 litres of capacity per unit (depending upon the number of rooms – see Table 4.1) must be provided. Typical container specifications are detailed at Appendix A. Provision of containers and/or financial contributions may also be required.		
	High rise – Space for containers allowing between 240 litres to a maximum 640 litres of capacity per unit (depending upon the number of rooms – see Table 4.1) must be provided. Typical container specifications are detailed at Appendix A. Provision of containers and/or financial contributions may also be required.		

Table 10.3

DESIGN STANDARDS CHECKLIST			
Key consideration	**Step 1** Aware of Standard Minimum Expectations?	Does this apply to you? Yes or No, please state why	**Step 2** Submit proposals to Planning Authority (Provide Plan/document Reference)
Commercial – storage requirements Refer to part 4.15 of the Design Guide.	Offices – 2600 litres per 1000m gross floor area. Typical container specifications detailed at Appendix A.	Yes. Storage requirements for A1 - A5 uses will be considered at the reserved matters stage and embedded into detailed design and presented in the DWMMP.	
	Retail – 5000 litres per 1000m gross floor area. Typical container specifications detailed at Appendix A.		
	Restaurants/Fast food outlets – 1500 litres per 20 dining spaces. Typical container specifications detailed at Appendix A.		
	Hotels – 1500 litres per 20 dining spaces. Typical container specifications detailed at Appendix A.		
Waste storage Point – Single Houses Refer to Part 5.6 of the Design Guide.	• Waste should not have to be moved more than 30m to storage area; • Storage location should not be more than 25m distance from the collection point; • Collection crews should not have to carry individual waste containers or move 2-wheeled containers more than 25m; • Passage of a 2 wheeled container from store to collection point should avoid steps, but where not possible should avoid transfer over more than 3 steps; • Gradients over which containers must traverse must not exceed 1:12; • Not have to be moved through a building to the collection point.	n/a No residential development proposed.	
Waste storage Point – Flats and Apartments and Commercial Developments Refer to Part 5.9 of the Design Guide.	• Waste should not have to be moved more than 30m (excluding vertical distance) to storage area; • Storage location should not be more than 10m distance from the collection point; • Passage of waste containers from store to collection point should avoid steps, but where not possible should avoid transfer over more than 3 steps. • Gradients over which containers must traverse should not exceed 1:12.	Yes. Storage requirements will be considered at the reserved matters stage and embedded into detailed design.	
Waste Storage Infrastructure Refer to Part 6 of the Design Guide	Where infrastructure is installed for the communal storage of waste a SIMPLE assessment of the location and the proposed infrastructure must be made against the key factors specified in the accompanying Assessment Criteria. The size of any storage area should be capable of accommodating the required number of waste receptacles (and their associated dimensions) or provide adequate capacity. General design features for above-ground storage compounds: • Sufficient clearance provided to allow full opening of container lid; • 150mm clear space between and around containers; • Minimum working headroom of at least 2m (where compound is covered); and • Layout such that any one receptacle can be serviced without having to move any other receptacle.	Yes. Storage requirements will be considered at the reserved matters stage and embedded into detailed design and presented in the DWMMP.	

Table 10.3

DESIGN STANDARDS CHECKLIST			
Key consideration	**Step 1** Aware of Standard Minimum Expectations?	Does this apply to you? Yes or No, please state why	**Step 2** Submit proposals to Planning Authority (Provide Plan/document Reference)
	Specific design requirements are detailed at Appendix D and should be referred to. Underground storage systems require: • Area(s) of ground free from services; and • Sufficient clear space above and around to allow emptying of containers. An indicative generic specification of an underground Bring Site facility is attached at Appendix G.		
Highways Refer to Part 7.3 of the Design Guide.	Where development proposals will seek to utilise a standard service as provided by the Waste Collection Authority, highways should: • Have a minimum width of 5m; • Permit collection vehicles to continue mainly in a forward direction; • Not require vehicles to reverse more than 12m; • Be constructed in accordance with relevant guidance; and • Allow at least 4m vertical clearance. In addition a minimum of 3.5m width and 4m in length should be allowed where the emptying of containers takes place. Sufficient overhead clearance should also be provided to allow for operation.	Yes. Highways requirements to accommodate the utilisation of services provided by the Waste Collection Authority are noted and will be embedded in the detailed design and presented in the DWMMP.	
Household Recycling Centre requirement Refer to Part 8.7 of the Design Guide	Where appropriate, developers will be expected to: • Provide finance for upgrading existing Household Recycling Centres; or • Provide finance for new Household Recycling Centres; and/or provide land for strategically located Household Recycling Centres. Section 106 Agreements or other suitable legal agreements, will be used to secure contributions/land and ensure that adequate provision is made. In Peterborough, contributions to related off-site infrastructure for development will be consistent with the Planning Obligations Implementation Scheme.	n/a No residential development proposed.	
Bring Site Requirement Refer to Part 9.5 of the Design Guide	To ensure provision of 1 additional Bring Site for every 800 dwellings, developers will be required to: • Provide finance and/or provision of additional Bring Sites; • Provide finance for upgrading existing facilities. Residential developers will be minimally required to provide temporary on-site facilities by occupation of the 50th residential property.	n/a No residential development proposed.	

Table 10.3

DESIGN STANDARDS CHECKLIST			
Key consideration	**Step 1** Aware of Standard Minimum Expectations?	Does this apply to you? Yes or No, please state why	**Step 2** Submit proposals to Planning Authority (Provide Plan/document Reference)
	Both temporary and permanent Bring Site facilities should be located at least 20m distance from the nearest property, accessible by service vehicles and located so as to avoid damage to overhead services during servicing. Section 106 Agreements or other suitable legal agreements, will be used to secure contributions and ensure that adequate provision is made. A SIMPLE assessment of the location and proposed infrastructure must be made against the key factors as specified in the accompanying Assessment Criteria. In Peterborough, contributions related to off-site provision for development will be consistent with the Planning Obligations Implementation Scheme.		
Alternative Waste Management Schemes Refer to Part 1.17 of the Design Guide	A DETAILED assessment of the scheme must be made against the key factors as specified in the accompanying Assessment Criteria. A developer will be required to fund such schemes beyond the amount the Local Authority would otherwise pay for standard service and pay for and provide non-standard infrastructure.	Noted, All waste management matters will be discussed with the relevant Authority at the reserved matters stage.	

Table 10.3

Submission

10.9 The completed DESIGN STANDARDS CHECKLIST must be submitted with all initial design proposals and will be reviewed by the Local Planning Authority.

10.10 The DESIGN STANDARDS CHECKLIST will then be submitted with all final development applications following any discussion with the Local Planning Authority and necessary amendments.

Assessment Criteria

Instructions

Usage

10.11 To be completed by the developer and submitted to the Local Planning Authority with all supporting plans and/or documents.

10.12 The assessment criteria tool only has to be used where development proposals involve:

- Construction of a waste storage compound; and/or
- Installation of Bring Site infrastructure; and/or
- An alternative scheme.

10.13 However, where the ASSESSMENT CRITERIA TOOL would otherwise not apply, a developer may still wish to voluntarily assess the waste management aspects of their development proposal against several or all of the key factors.

Completion

10.14 Completion of the ASSESSMENT CRITERIA TOOL should be as follows:

Waste Storage	**Complete Sheet A.** Provide a SIMPLE Compound assessment
Installation of Bring Site Infrastructure	**Complete Sheet B.** Provide a SIMPLE assessment. Discussion with Local Planning Authority required for issues of accessibility and health and safety.
Alternative Scheme	**Complete Sheet C.** Provide a DETAILED assessment. Consultation with Local Planning Authority mandatory for all issues.

Table 10.4

10.15 SIMPLE Assessments – adequate amount of information to demonstrate suitability of proposals in relation to the provision of waste management facilities is required.

10.16 DETAILED Assessments – more detailed information must be provided to demonstrate the suitability of proposals for waste management facilities which differ from the standards set out in the RECAP Design Guide.

Appendix C 'RECAP' Assessment Criteria

Assessment Criteria

SHEET A: ASSESSMENT CRITERIA FOR WASTE STORAGE COMPOUNDS		
Assessment Factor	Information Required – Simple Assessment	Submit Assessment to Planning Authority (Provide Document Reference)
Quality Place Making	Design should also be assessed for consistency with the wider development framework and the promotion of quality place making.	
Proposals for On-site Treatment	On-site treatment (e.g. bailing, compaction or other treatment that may be utilised in an On-site alternative scheme) may be beneficial on larger sites. In such cases, a clear illustration must be provided of (where appropriate): • Sustainability of treatment methods; • Waste volume reduction; • Beneficial use of waste (recovery of value, energy, etc); and • Implications for Waste Collection Authority and Waste Disposal Authority.	
Accessibility	Depending upon the waste infrastructure employed, it must be demonstrated that: • The location chosen offers convenience and efficiency for all users; • An assessment of potential user conflict has been made with appropriate solutions provided; and • Marking and signage is adequate for function.	
Health and Safety	All proposals must be accompanied by a health and safety risk assessment and account must be made of (where appropriate): • Lighting; • Steps and gradients; • Marking and signage; • User conflicts; • Risks from equipment/technology utilised; and • Training requirements (operators);	
Security	It must be clearly demonstrated that proposals: • Will not jeopardise the security of the wider area; and • Infrastructure will, as appropriate, feature security measures that permit efficient user operation but are robust enough to deter vandalism, arson and other forms of misuse. Notes on waste compound security are presented at Appendix E.	
Protection of the Environment	Assessment must be made of the impact proposals may have in terms of: • Nuisance and amenity (including visual impact); • Pollution threat to environmental media (i.e. air, land and water). • Damage and disturbance to nationally and internationally protected sites and wider biodiversity; and • Damage and disturbance to nationally protected sites/features of historic and archaeological interest. Suitable mitigation measures must be outlined.	
Maintenance	Where maintenance responsibility lies with the developer they must: • Submit proposed maintenance schedules (routine and non-routine); • Submit proposals for maintaining records of works undertaken; and • Submit details of third party contractors to be employed.	

Sheet A: Assessment Criteria for Waste Storage Compounds

For multiple storage points/methods, this table should be copied and completed as appropriate.

SHEET B: ASSESSMENT CRITERIA FOR PROVISION OF BRING SITE INFRASTRUCTURE			
Assessment Factor	Information Required – Simple Assessment	Consult with Local Authority? Yes/No	Submit Assessment to Planning Authority (Provide Document Reference)
Quality Place Making	Design should also be assessed for consistency with the wider development framework and the promotion of quality place making.		
Proposals for On-site Treatment	On-site treatment (e.g. bailing, compaction or other treatment that may be utilised in an On-site alternative scheme) may be beneficial on larger sites. In such cases, a clear illustration must be provided of (where appropriate): • Sustainability of treatment methods; • Waste volume reduction; • Beneficial use of waste (recovery of value, energy, etc); and • Implications for Waste Collection Authority and Waste Disposal Authority.		
Accessibility	Depending upon the waste infrastructure employed, it must be demonstrated that: • The location chosen offers convenience and efficiency for all users; • An assessment of potential user conflict has been made with appropriate solutions provided; and • Marking and signage is adequate for function.		
Health and Safety	All proposals must be accompanied by a health and safety risk assessment and account must be made of (where appropriate): • Lighting; • Steps and gradients; • Marking and signage; • User conflicts; • Risks from equipment/technology utilised; and • Training requirements (operators).		
Security	It must be clearly demonstrated that proposals: • Will not jeopardise the security of the wider area; and • Infrastructure will, as appropriate, feature security measures that permit efficient user operation but are robust enough to deter vandalism, arson and other forms of misuse. Notes on waste compound security are presented at Appendix E.		
Protection of the Environment	Assessment must be made of the impact proposals may have in terms of: • Nuisance and amenity (including visual impact); • Pollution threat to environmental media (i.e. air, land and water). • Damage and disturbance to nationally and internationally protected sites and wider biodiversity; and • Damage and disturbance to nationally protected sites/features of historic or archaeological interest. Suitable mitigation measures must be outlined.		
Maintenance	Where maintenance responsibility lies with the developer they must: • Submit proposed maintenance schedules (routine and non-routine); • Submit proposals for maintaining records of works undertaken; and • Submit details of third party contractors to be employed.		

Sheet B: Assessment Criteria for provision of Bring Site Infrastructure

For multiple provision of Bring Sites, this table should be copied and completed as appropriate.

SHEET C: ASSESSMENT CRITERIA FOR ALTERNATIVE SCHEMES			
Assessment Factor	Information Required – Detailed Assessment	Consult Local Authority? Yes/No	Submit Assessment to Planning Authority (Provide Document Reference)
Development Density and Scale	A developer must demonstrate that their proposals: • Will adequately serve the population density of their development and, if applicable, the wider population; • Allocate sufficient land to allow their proposals to function efficiently; and • Provide sufficient capacity to account for anticipated density changes in the short-term.		
Infrastructure Design	It must be demonstrated that infrastructure employed: • Is adequate to execute function; • Is robust and durable; • Is compliant with all relevant standards; and • Avoids unnecessary complexity.		
Quality Place Making	Design should also be assessed for consistency with the wider development framework and the promotion of quality place making.		
Proposals for On-site Treatment	On-site treatment (e.g. bailing, compaction or other treatment that may be utilised in an alternative scheme) may be beneficial on larger sites. In such cases, a clear illustration must be provided of (where appropriate): • Sustainability of treatment methods; • Waste volume reduction; • Beneficial use of waste (recovery of value, energy, etc); and • Implications for Waste Collection Authority and Waste Disposal Authority.		
Accessibility	Depending upon the waste infrastructure employed, it must be demonstrated that: • The location chosen offers convenience and efficiency for all users; • An assessment of potential user conflict has been made with appropriate solutions provided; and • Marking and signage is adequate for function.		
Health and Safety	All proposals must be accompanied by a health and safety risk assessment and account must be made of (where appropriate): • Lighting; • Steps and gradients; • Marking and signage; User conflicts; • Risks from equipment/technology utilised; and • Training requirements (operators).		
Security	It must be clearly demonstrated that proposals: • Will not jeopardise the security of the wider area; and • Infrastructure will, as appropriate, feature security measures that permit efficient user operation but are robust enough to deter vandalism, arson and other forms of misuse.		

Sheet C: Assessment Criteria for Alternative Schemes

SHEET C: ASSESSMENT CRITERIA FOR ALTERNATIVE SCHEMES			
Assessment Factor	Information Required – Detailed Assessment	Consult Local Authority? Yes/No	Submit Assessment to Planning Authority (Provide Document Reference)
Protection of the Environment	Assessment must be made of the impact proposals may have in terms of: • Nuisance and amenity (including visual impact); • Pollution threat to environmental media (i.e. air, land and water); • Damage and disturbance to nationally and internationally protected sites and wider biodiversity; and • Damage and disturbance to nationally protected sites/features of historic or archaelogical interest. Suitable mitigation measures must be outlined.		
Maintenance	Where maintenance responsibility lies with the developer they must: • Submit proposed maintenance schedules (routine and non-routine); • Submit proposals for maintaining records of works undertaken; and • Submit details of third party contractors to be employed.		

Sheet C: Assessment Criteria for Alternative Schemes

Where alternative schemes are proposed, this table should be copied and completed as appropriate.

Basis for Conditions and/or Agreements

Instructions on Use

10.17 To be used by the Local Planning Authority when assessing initial design proposals as submitted by the developer.

10.18 It may be appropriate to apply conditions or reach agreement on several factors in relation to the development and this tool is a platform for negotiating suitable solutions to arrangements for:

> Financial Contributions;
> Infrastructure and Land Provision;
> Location Issues; and
> Infrastructure ownership and maintenance.

10.19 In Peterborough the basis for conditions and/or agreement should be applied in conjunction with the Peterborough Planning Obligations Scheme.

Informing the Developer

10.20 Any conditions should be imposed or an agreement negotiated in accordance with standard planning procedures and mechanisms.

UNIVERSITY OF CAMBRIDGE

AECOM